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**Before the
Federal Communications Commission
Washington, D.C. 20554**

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Extending Wireless)
Telecommunications Services)
To Tribal Lands)
)
)

WT Docket No. 99-266

COMMENTS OF NORTEL NETWORKS

Nortel Networks Inc. ("Nortel Networks") hereby addresses some of the issues raised in the Commission's Notice of Proposed Rulemaking on the potential of terrestrial and satellite wireless technologies to provide basic telephone service on tribal lands and other similar unserved areas.¹ Nortel Networks shares the Commission's goals of extending basic and broadband communications capabilities to these unserved and underserved territories. As explained below, Nortel Networks believes that the Commission can readily foster the expansion of service by enhancing the economic viability of terrestrial wireless offerings through licensing and allocation decisions.

Nortel Networks is the leading global supplier, in more than 100 countries, of digital telecommunications systems to businesses, universities, local, state and federal governments, the telecommunications industry, and other institutions. The company employs more than 30,000 people in the United States in manufacturing plants, research and development centers, and in marketing, sales and service offices across the country.

¹ *Extending Wireless Telecommunications Services To Tribal Lands*, WT Docket No. 99-266, FCC 99-205, released August 18, 1999 (hereafter "Notice").

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Nortel Networks is very interested in this proceeding. Nortel Networks has long advocated wireless solutions as a means of expanding telecommunications capabilities for fixed and mobile applications in less-densely populated areas. In addition, Nortel Networks is participating in numerous Wireless Local Loop (“WLL”) projects in the United States and elsewhere that are bringing advanced communications capabilities to rural areas, including tribal lands. Indeed, the *Notice* discusses one of those projects, which involves Saddleback Communications, a division of the Salt River Pima-Maricopa Indian Community in Arizona.²

I. The Commission Should Take Steps to Enhance the Economic Viability of Wireless Service in Tribal Lands

The Notice requests comment on its licensing policies in light of the fact that tribal lands rarely fall neatly within a single licensing area (*e.g.*, MSA, RSA or BTA) of the Commission.³ The Notice also seeks input on how its technical rules can be formulated to encourage licensees to provide service in sparsely populated areas such as tribal lands.⁴ Nortel Networks urges the Commission to adopt licensing and service rules that will enhance the financial viability of wireless communications systems in these rural areas so that the systems are deployed in an economic manner, lessening their dependence on subsidy programs.

In formulating policies for tribal lands and other similar unserved and underserved areas, the Commission should consider the overall business case for telecommunications services, and design policies that improve the financial soundness of infrastructure investments. While tribal land administrations are typically willing to provide telecommunications service to their residents at rates which yield lower returns than those normally demanded by for-profit

² *E.g.*, *Notice* at ¶ 11.

³ *Notice* at ¶¶ 25-27.

⁴ *Notice* at ¶ 49.

operators, their ability to do this is limited. One way to improve this situation is to make it possible for (and even encourage) tribal land service operators to expand their operations as a competitive service provider into adjacent areas.

The Notice focuses on facilitating an operator outside the tribal lands extending its service *into* the tribal lands, but Nortel Networks also believes that the Commission should encourage tribal communications networks that can enhance their viability by expanding *out to* adjacent areas that are not within their tribal lands. Doing so can provide much needed system utilization and overhead absorption, and provide additional revenues and profits that will encourage investment in telecommunications systems that provide service to tribal lands residences and businesses. Modern network technology readily lends itself to such extended area service. Incumbent carriers already make extensive use of such scale economics to improve their operating efficiencies. Providing tribal lands operators the same opportunity would greatly encourage the deployment of service in their areas.

II. Spectrum Policies to Encourage Deployment of Service in Tribal Lands

The *Notice* also seeks comment on spectrum allocations that could facilitate service in tribal lands, including both terrestrial and satellite systems.⁵ Nortel Networks believes that the Commission should be “technology neutral” in seeking to attain the goal of expanding service to tribal lands, and not artificially encourage the use of any particular technology. Nortel Networks is highly skeptical, however, that satellite services will be nearly as attractive as the terrestrial solutions that are already available and cost effective (with the right spectrum allocation and licensing policies). Fixed Wireless Access (“FWA”) systems can be deployed at a cost range of

⁵ E.g., *Notice* at ¶¶ 37-39, 43.

\$1,500 to \$10,000 per customer (including customer premise equipment) that will deliver wireline voice quality and at least 56 kbps data speed.⁶

Nortel Networks supports views of wireless operators, such as Western Wireless, of the inherent advantages of FWA or wireless local loop systems in serving tribal lands and other similar unserved/underserved areas.⁷ In fact, the experimental WLL system operated by Saddleback Communications for the Salt River Pima-Maricopa Indian Community provides direct evidence of this potential. This WLL system uses commercial “off-the-shelf” equipment produced in high volume presently for such applications in markets outside the United States.⁸ That project is meeting the service goals of this proceeding, and the operator, Saddleback Communications, is ready and anxious to expand the service to all residents of the reservation.

Licensing of spectrum for tribal lands and other similar unserved areas is unique in that these territories are geographically dispersed and irregular in shape. In cases where dedicated spectrum is utilized for FWA, Nortel Networks supports the analysis and recommendation of Mountain Tel regarding licensing spectrum in such areas.⁹ The licensing rules for fixed microwave reflected in Part 101 of the Commission's rules can be applied, because contention for specific FWA frequencies by multiple eligible carriers in specific areas is unlikely.¹⁰ In situations where spectrum is shared use (such as using 1.9 GHz PCS for both mobile and fixed

⁶ The higher cost estimate would apply in very low density areas and still represents a high capital cost per subscriber without some form of universal service subsidy.

⁷ *Notice* at ¶ 8.

⁸ Nortel Networks observes that the Saddleback Communications system is operating in the 3500 MHz band, not the 3650-3700 MHz band as indicated in the *Notice* at ¶ 11.

⁹ *See generally*, Mountain Tel Petition for Rulemaking, filed September 30, 1998, at p. 22 and Appendix A.


¹⁰ In addition, as discussed above, the Commission can also enhance the financial viability of these wireless systems on tribal lands by allowing tribal authority communications carriers to also serve adjacent areas outside the tribal lands that contain viable commercial segments.

service) Nortel Networks supports a policy of allowing BTA licensees to operate in an adjacent licensee's area if the adjacent licensee has no plans to serve the area in question. Permission for such spectrum use in adjacent areas should not be unreasonably withheld (including fees for usage) by the incumbent licensee.

III. Conclusion

Nortel Networks applauds the Commission's efforts to bring the benefits of basic and advanced telecommunications capabilities to unserved and underserved tribal lands. As indicated in its comments in this proceeding, Nortel Networks believes that terrestrial wireless systems are available today which can help fulfill these needs. The Commission need only adopt licensing and allocation decisions that will provide tribal authorities and other carriers with the ability and incentive to deploy these systems expeditiously.

Respectfully submitted,



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